

Annex 2C. Non-energy Uses of Fossil Fuels (IPCC 2B, 2D)
to the Technical Support Document for the 2000-2012 California's Greenhouse Gas
Emissions Inventory

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Variables Used in the Emissions Estimation Equations

Values last updated on Monday, March 24, 2014

IPCC category = 2D1 — Non-Energy Products from Fuels and Solvent Use - Lubricant Use

► Sector = Not Specified Industrial >

Activity = Fuel consumption - Lubricants

- Variable Name -	- Year -	- Value and Units -	- Reference -
Fuel consumption - Lubricants	1990	90,437,813 gal	EIA, 2013c
Fuel consumption - Lubricants	1991	80,907,049 gal	EIA, 2013c
Fuel consumption - Lubricants	1992	82,487,436 gal	EIA, 2013c
Fuel consumption - Lubricants	1993	83,993,648 gal	EIA, 2013c
Fuel consumption - Lubricants	1994	87,790,211 gal	EIA, 2013c
Fuel consumption - Lubricants	1995	86,282,485 gal	EIA, 2013c
Fuel consumption - Lubricants	1996	83,736,305 gal	EIA, 2013c
Fuel consumption - Lubricants	1997	88,457,788 gal	EIA, 2013c
Fuel consumption - Lubricants	1998	92,602,520 gal	EIA, 2013c
Fuel consumption - Lubricants	1999	93,571,340 gal	EIA, 2013c
Fuel consumption - Lubricants	2000	92,168,065 gal	EIA, 2013c
Fuel consumption - Lubricants	2001	84,446,268 gal	EIA, 2013c
Fuel consumption - Lubricants	2002	83,447,173 gal	EIA, 2013c
Fuel consumption - Lubricants	2003	77,146,817 gal	EIA, 2013c
Fuel consumption - Lubricants	2004	78,156,509 gal	EIA, 2013c
Fuel consumption - Lubricants	2005	77,749,302 gal	EIA, 2013c
Fuel consumption - Lubricants	2006	75,749,597 gal	EIA, 2013c
Fuel consumption - Lubricants	2007	78,224,629 gal	EIA, 2013c
Fuel consumption - Lubricants	2008	72,622,126 gal	EIA, 2013c
Fuel consumption - Lubricants	2009	65,292,399 gal	EIA, 2013c
Fuel consumption - Lubricants	2010	72,544,923 gal	EIA, 2013c
Fuel consumption - Lubricants	2011	68,838,000 gal	EIA, 2013c
Fuel consumption - Lubricants	2012	63,336,000 gal	EIA, 2013c
Fuel CO2 emission	1990	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1991	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1992	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1993	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1994	0.0743 g / btu	USEPA, 2012b
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Fuel CO2 emission	2001	0.0743 g / btu	USEPA, 2012b
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Fuel CO2 emission	2003	0.0743 g / btu	USEPA, 2012b
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Fuel CO2 emission	2006	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2007	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2008	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2009	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2010	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2011	0.0743 g / btu	USEPA, 2012b

Variables Used in the Emissions Estimation Equations

Values last updated on Monday, March 24, 2014

Fuel CO2 emission	2012	0.0743 g / btu	USEPA, 2012b
Heat content	1990	144,000 btu / gal	USEPA, 2012b
Heat content	1991	144,000 btu / gal	USEPA, 2012b
Heat content	1992	144,000 btu / gal	USEPA, 2012b
Heat content	1993	144,000 btu / gal	USEPA, 2012b
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Heat content	2008	144,000 btu / gal	USEPA, 2012b
Heat content	2009	144,000 btu / gal	USEPA, 2012b
Heat content	2010	144,000 btu / gal	USEPA, 2012b
Heat content	2011	144,000 btu / gal	USEPA, 2012b
Heat content	2012	144,000 btu / gal	USEPA, 2012b
Proportion of carbon stored	1990	0.09	USEPA, 2013b
Proportion of carbon stored	1991	0.09	USEPA, 2013b
Proportion of carbon stored	1992	0.09	USEPA, 2013b
Proportion of carbon stored	1993	0.09	USEPA, 2013b
Proportion of carbon stored	1994	0.09	USEPA, 2013b
Proportion of carbon stored	1995	0.09	USEPA, 2013b
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Proportion of carbon stored	2000	0.09	USEPA, 2013b
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Proportion of carbon stored	2002	0.09	USEPA, 2013b
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Proportion of carbon stored	2005	0.09	USEPA, 2013b
Proportion of carbon stored	2006	0.09	USEPA, 2013b
Proportion of carbon stored	2007	0.09	USEPA, 2013b
Proportion of carbon stored	2008	0.09	USEPA, 2013b
Proportion of carbon stored	2009	0.09	USEPA, 2013b
Proportion of carbon stored	2010	0.09	USEPA, 2013b
Proportion of carbon stored	2011	0.09	USEPA, 2013b
Proportion of carbon stored	2012	0.09	USEPA, 2013b

► Sector = Not Specified Transportation >

Activity = Fuel consumption - Lubricants

- Variable Name -	- Year -	- Value and Units -	- Reference -
Fuel consumption - Lubricants	1990	120,583,751 gal	EIA, 2013c
Fuel consumption - Lubricants	1991	107,876,065 gal	EIA, 2013c
Fuel consumption - Lubricants	1992	109,983,248 gal	EIA, 2013c
Fuel consumption - Lubricants	1993	111,991,531 gal	EIA, 2013c

Variables Used in the Emissions Estimation Equations

Values last updated on Monday, March 24, 2014

Fuel consumption - Lubricants	1994	117,053,614 gal	EIA, 2013c
Fuel consumption - Lubricants	1995	115,043,313 gal	EIA, 2013c
Fuel consumption - Lubricants	1996	111,648,407 gal	EIA, 2013c
Fuel consumption - Lubricants	1997	117,943,717 gal	EIA, 2013c
Fuel consumption - Lubricants	1998	123,470,027 gal	EIA, 2013c
Fuel consumption - Lubricants	1999	124,761,787 gal	EIA, 2013c
Fuel consumption - Lubricants	2000	122,890,753 gal	EIA, 2013c
Fuel consumption - Lubricants	2001	112,595,025 gal	EIA, 2013c
Fuel consumption - Lubricants	2002	111,262,898 gal	EIA, 2013c
Fuel consumption - Lubricants	2003	102,862,423 gal	EIA, 2013c
Fuel consumption - Lubricants	2004	104,208,678 gal	EIA, 2013c
Fuel consumption - Lubricants	2005	103,665,736 gal	EIA, 2013c
Fuel consumption - Lubricants	2006	100,999,463 gal	EIA, 2013c
Fuel consumption - Lubricants	2007	104,299,505 gal	EIA, 2013c
Fuel consumption - Lubricants	2008	96,829,501 gal	EIA, 2013c
Fuel consumption - Lubricants	2009	87,056,532 gal	EIA, 2013c
Fuel consumption - Lubricants	2010	96,726,564 gal	EIA, 2013c
Fuel consumption - Lubricants	2011	91,770,000 gal	EIA, 2013c
Fuel consumption - Lubricants	2012	84,420,000 gal	EIA, 2013c
Fuel CO2 emission	1990	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1991	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1992	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1993	0.0743 g / btu	USEPA, 2012b
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Fuel CO2 emission	1995	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1996	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1997	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	1998	0.0743 g / btu	USEPA, 2012b
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Fuel CO2 emission	2000	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2001	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2002	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2003	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2004	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2005	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2006	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2007	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2008	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2009	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2010	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2011	0.0743 g / btu	USEPA, 2012b
Fuel CO2 emission	2012	0.0743 g / btu	USEPA, 2012b
Heat content	1990	144,000 btu / gal	USEPA, 2012b
Heat content	1991	144,000 btu / gal	USEPA, 2012b
Heat content	1992	144,000 btu / gal	USEPA, 2012b
Heat content	1993	144,000 btu / gal	USEPA, 2012b
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Heat content	1999	144,000 btu / gal	USEPA, 2012b
Heat content	2000	144,000 btu / gal	USEPA, 2012b
Heat content	2001	144,000 btu / gal	USEPA, 2012b
Heat content	2002	144,000 btu / gal	USEPA, 2012b
Heat content	2003	144,000 btu / gal	USEPA, 2012b

Variables Used in the Emissions Estimation Equations

Values last updated on Monday, March 24, 2014

Heat content	2004	144,000 btu / gal	USEPA, 2012b
Heat content	2005	144,000 btu / gal	USEPA, 2012b
Heat content	2006	144,000 btu / gal	USEPA, 2012b
Heat content	2007	144,000 btu / gal	USEPA, 2012b
Heat content	2008	144,000 btu / gal	USEPA, 2012b
Heat content	2009	144,000 btu / gal	USEPA, 2012b
Heat content	2010	144,000 btu / gal	USEPA, 2012b
Heat content	2011	144,000 btu / gal	USEPA, 2012b
Heat content	2012	144,000 btu / gal	USEPA, 2012b
Proportion of carbon stored	1990	0.09	USEPA, 2013b
Proportion of carbon stored	1991	0.09	USEPA, 2013b
Proportion of carbon stored	1992	0.09	USEPA, 2013b
Proportion of carbon stored	1993	0.09	USEPA, 2013b
Proportion of carbon stored	1994	0.09	USEPA, 2013b
Proportion of carbon stored	1995	0.09	USEPA, 2013b
Proportion of carbon stored	1996	0.09	USEPA, 2013b
Proportion of carbon stored	1997	0.09	USEPA, 2013b
Proportion of carbon stored	1998	0.09	USEPA, 2013b
Proportion of carbon stored	1999	0.09	USEPA, 2013b
Proportion of carbon stored	2000	0.09	USEPA, 2013b
Proportion of carbon stored	2001	0.09	USEPA, 2013b
Proportion of carbon stored	2002	0.09	USEPA, 2013b
Proportion of carbon stored	2003	0.09	USEPA, 2013b
Proportion of carbon stored	2004	0.09	USEPA, 2013b
Proportion of carbon stored	2005	0.09	USEPA, 2013b
Proportion of carbon stored	2006	0.09	USEPA, 2013b
Proportion of carbon stored	2007	0.09	USEPA, 2013b
Proportion of carbon stored	2008	0.09	USEPA, 2013b
Proportion of carbon stored	2009	0.09	USEPA, 2013b
Proportion of carbon stored	2010	0.09	USEPA, 2013b
Proportion of carbon stored	2011	0.09	USEPA, 2013b
Proportion of carbon stored	2012	0.09	USEPA, 2013b

IPCC category = 2D3 — Non-Energy Products from Fuels and Solvent Use - Solvent Use

► Sector = Solvents & Chemicals : Evaporative losses : Fugitives >

Activity = Fugitive emissions

- Variable Name -	- Year -	- Value and Units -	- Reference -
Fugitive emissions	1990	Not used in estimates	None, see text
Fugitive emissions	1991	Not used in estimates	None, see text
Fugitive emissions	1992	Not used in estimates	None, see text
Fugitive emissions	1993	Not used in estimates	None, see text
Fugitive emissions	1994	Not used in estimates	None, see text
Fugitive emissions	1995	Not used in estimates	None, see text
Fugitive emissions	1996	Not used in estimates	None, see text
Fugitive emissions	1997	Not used in estimates	None, see text
Fugitive emissions	1998	Not used in estimates	None, see text
Fugitive emissions	1999	Not used in estimates	None, see text
Fugitive emissions	2000	Not used in estimates	None, see text
Fugitive emissions	2001	Not used in estimates	None, see text
Fugitive emissions	2002	Not used in estimates	None, see text
Fugitive emissions	2003	Not used in estimates	None, see text
Fugitive emissions	2004	Not used in estimates	None, see text
Fugitive emissions	2005	Not used in estimates	None, see text
Fugitive emissions	2006	Not used in estimates	None, see text
Fugitive emissions	2007	Not used in estimates	None, see text

Variables Used in the Emissions Estimation Equations

Values last updated on Monday, March 24, 2014

Fugitive emissions	2008	Not used in estimates	None, see text
Fugitive emissions	2009	Not used in estimates	None, see text
Fugitive emissions	2010	Not used in estimates	None, see text
Fugitive emissions	2011	Not used in estimates	None, see text
Fugitive emissions	2012	Not used in estimates	None, see text